# **Banbury Springs Limpet**

Lanx sp. [undescribed]

Gastropoda — Basommatophora — Lymnaeidae

# **CONSERVATION STATUS / CLASSIFICATION**

Rangewide: Critically imperiled (G1)
Statewide: Critically imperiled (S1)

ESA: Endangered

USFS: Region 1: No status; Region 4: No status

BLM: Threatened, Endangered, Proposed, and Candidate

(Type 1)

IDFG: Not classified

#### **BASIS FOR INCLUSION**

Endangered under the U.S. Endangered Species Act.

#### **TAXONOMY**

The species has not been described.

#### **DISTRIBUTION AND ABUNDANCE**

The Banbury Springs limpet is endemic to Idaho, occurring at 3 spring complexes in the Snake River drainage. Within these complexes, populations occur in small areas where habitat is suitable (U. S. Fish and Wildlife Service 1995). Population densities in the Thousand Springs Preserve ranged from 4 to 20 individuals per m<sup>2</sup> (Frest and Johannes 1992).

#### **POPULATION TREND**

Current population trend is not known.

# **HABITAT AND ECOLOGY**

This freshwater limpet inhabits pristine cold-water springs and spring outflow channels having a substantial current (U. S. Fish and Wildlife Service 1995). Highly oxygenated water is required because this species lacks specialized respiratory organs; respiration occurs across the skin and mantle tissues (Frest and Johannes 1992). Substrates at occupied sites are cobbles and boulders of smooth basalt, and individuals are generally found on the undersides of coarse substrates. The species is typically absent from areas with large aquatic macrophytes or filamentous green algae (Frest 1999, U. S. Fish and Wildlife Service 1995).

# **ISSUES**

The Snake River and associated springs have become nutrient enriched as a result of agricultural and aquacultural runoff (Frest 1999).

# **RECOMMENDED ACTIONS**

A recovery plan has been developed for the federally listed snails occurring in the Snake River, which includes this species. Objectives of the plan include protection of the remaining free-flowing mainstem and cold-water spring habitats in occupied reaches of the Snake River, stabilization of water levels, improvement of water quality, augmentation of flows above Milner Dam, and control of exotic species (U. S. Fish and Wildlife Service 1995). U. S. Fish and Wildlife Service has also implemented a monitoring program. Increasing, self-sustaining colonies at monitoring sites over a 5 year period are required for recovery.

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